



**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

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In re the Application of :  
Osamu HASHIMOTO et al. :  
Serial Number: 10/048,064 : Group Art Unit: 1714  
Filed: January 28, 2002 : Examiner: Toomer, Cephia D  
For: RADIO WAVE ABSORBER COMPOSITION

**DECLARATION UNDER RULE 37 C.F.R. 1.132**

Honorable Commissioner of  
Patents and Trademarks  
P.O. Box 1450  
Alexandria, VA 22318-1450

Sir:

I, Tetsu SOH, do hereby declare as follows:

1. That I am a citizen of Japan, residing at c/o The Yokohama Rubber Co., Ltd., Hiratsuka Factory, 2-1, Oiwake, Hiratsuka-shi, Kanagawa 254-0047, Japan; that in March 1984, I graduated from the Master Course of Engineering, Faculty of Safety Engineering, Department of Engineering, Yokohama National University, Yokohama-shi, Kanagawa-ken, Japan; that since April 1984, I have been employed by The Yokohama Rubber Co., Ltd., a Japanese corporation, of 36-11, Shimbashi 5-chome, Minato-ku, Tokyo, Japan, the Assignee of record in the above-identified subject application; and that in the above-named corporation, I have been engaged in research and development mainly in the field of radio wave absorbers up to present.
2. That I am one of the three joint inventors of the invention described and claimed in the subject United States Patent Application Serial Number 10/048,064 (hereinafter referred to as the present application), and as such, am fully familiar with the invention of the present application (hereinafter

referred to as the present invention).

3. That I am also fully aware that in the Office Action issued in the present application, dated July 18, 2003 (Paper No. 4), the Claims 3 and 4 of the present application are rejected as being unpatentable over Koyama US 4,460,730) or Luxon (US 5,777,586) or JP '982 (JP406275982), and further in view of WO9925166 (with Takao-US 6,479,140 as a translation of WO9925166).

4. That at this time I directed and supervised the carrying out of experiments which are fully described in hereto attached sheets, the purpose of which being to testify an advantageous result brought about when in radio wave absorbing compositions, electroconductive carbon black is compounded in an amount of within a range of more than 0 parts by weight to not more than 4 parts by weight, to 100 parts by weight of substrate.

#### EXPERIMENTS

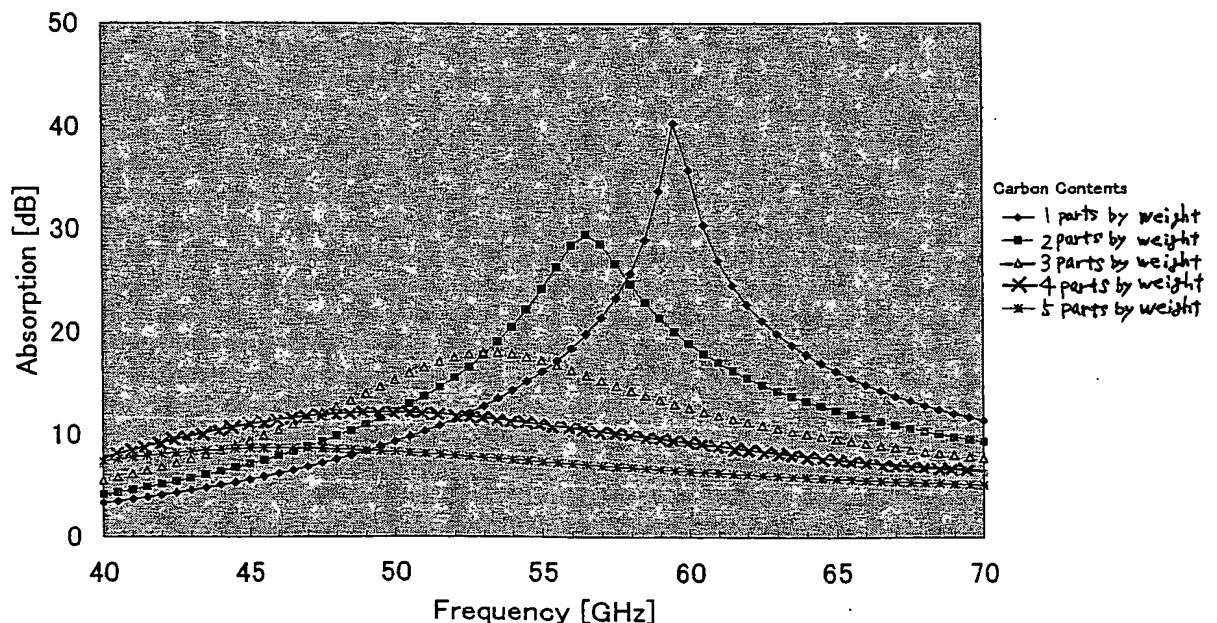
While the amount of electroconductive titanium oxide to 100 parts by weight of epoxy resin, a substrate, was fixed to be 32 parts by weight, the amount of electroconductive carbon black to 100 parts by weight of the substrate was diversified among 1, 2, 3, 4 and 5 parts by weight, and there were provided five different radio wave absorbers having different respective contents of the electroconductive carbon black and commonly having a thickness of 0.43 mm. Of each of the radio wave absorbers, evaluation was carried out of the radio wave absorption performance (dB) at an incident angle of radio waves of 5°, of which the result is shown in hereto attached graphic view.

#### CONSIDERATIONS

As clearly seen with reference to the graphic view, although very remarkable radio wave absorbing performance is demonstrated where the compounding amount of the electroconductive carbon black is 1 part by

weight, the performance tends to lower as the compounding amount is increased. Particularly, where the compounding amount of the electroconductive carbon black exceeds 4 parts by weight, the radio wave absorbing performance is seen to conspicuously lower.

Further, while in Takao the compounding amounts of electroconductive filler are 5 to 80 % by weight, when converted in terms of the amount to 100 parts by weight of substrate these amounts correspond to 5.3 to 400 parts by weight. That is to say, the compounding amounts of the electroconductive filler in or of Takao are outside the range defined in or for the present invention, and it is apparent that if a compounding amount within the range according to Takao would be applied to the cases of Koyama, Luxon or JP '982, there cannot be attained such a remarkable radio wave absorbint performance as being attainable according to the present invention.



The undersigned declarant declare further that all statements made herein of his own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful, false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful, false statements may jeopardize the validity of the above identified application or any patent issuing thereon.

Dated:

11-10 '03

A handwritten signature in black ink, appearing to read 'Tetsu SOH', is written over a horizontal line.

Tetsu SOH